

WHAT IS CLAIMED IS:

1. A conveying device with peristaltic movement, which includes a flexible transport tube, contracts a cross-sectional area of transport path in said flexible transport tube by utilizing contractive force obtained when a two-way shape memory alloy is heated, then restores an original cross-sectional area of transport path in said flexible transport tube by utilizing recovery force obtained when heating the two-way shape memory alloy is terminated, and which controls repetition of the contraction motion and the restoration motion by a temperature controlling device, so as to transport an object in a predetermined direction.

2. A device according to Claim 1, further including the two-way shape memory alloy and the temperature controlling device.

3. A device according to Claim 1, wherein the contraction motion or the restoration motion is an action that causes part of the cross-sectional area of transport path in the flexible transport tube to be contracted or restored.

4. A device according to Claim 2, wherein the contraction motion or the restoration motion is an action that causes part

of the cross-sectional area of transport path in the flexible transport tube to be contracted or restored.

5. A device according to Claim 1, wherein the temperature controlling device moves sequentially a position to be contracted or to be restored in an object conveying direction.

6. A device according to Claim 2, wherein the temperature controlling device moves sequentially a position to be contracted or to be restored in an object conveying direction.

7. A device according to Claim 3, wherein the temperature controlling device moves sequentially a position to be contracted or to be restored in an object conveying direction.

8. A device according to Claim 1, wherein the two-way shape memory alloy is of a fine wire shape.

9. A device according to Claim 2, wherein the two-way shape memory alloy is of a fine wire shape.

10. A device according to Claim 1, wherein the two-way shape memory alloy is of a coil form.

11. A device according to Claim 2, wherein the two-way shape memory alloy is of a coil form.

12. A device according to Claim 1, wherein the two-way shape memory alloy is of a plate form.

13. A device according to Claim 2, wherein the two-way shape memory alloy is of a plate form.

14. A device according to Claim 1, wherein the two-way shape memory alloy is of a ring form.

15. A device according to Claim 2, wherein the two-way shape memory alloy is of a ring form.

16. A device according to Claim 1, wherein the temperature controlling device is an electric conduction and heating device which changes the temperature of the two-way shape memory alloy.

17. A device according to Claim 2, wherein the temperature controlling device is an electric conduction and heating device which changes the temperature of the two-way shape memory alloy.

18. A device according to Claim 1, wherein the temperature controlling device is an external heating device which changes the temperature of the two-way shape memory alloy.

19. A device according to Claim 2, wherein the temperature controlling device is an external heating device which changes the temperature of the two-way shape memory alloy.